

UK Patent Application (19) GB (11) 2 272 791 (13) A

(43) Date of A Publication 25.05.1994

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| (21) Application No 9224608.1 | (51) INT CL ⁵ G09F 9/33 |
| (22) Date of Filing 24.11.1992 | |
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| (72) Inventor(s) Lawford Delroy Marks | (56) Documents Cited GB 2207796 A GB 2093617 A WO 90/12354 A2 WO 80/02218 A1 |
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(54) Revolving information displays

(57) A display comprises an LED module 1 mounted for rotation on a base 2. The rotation of the LED's creates for an observer the illusion of a larger display. Control of the LED's by suitable electronic circuitry makes it possible to display textual or graphical information.

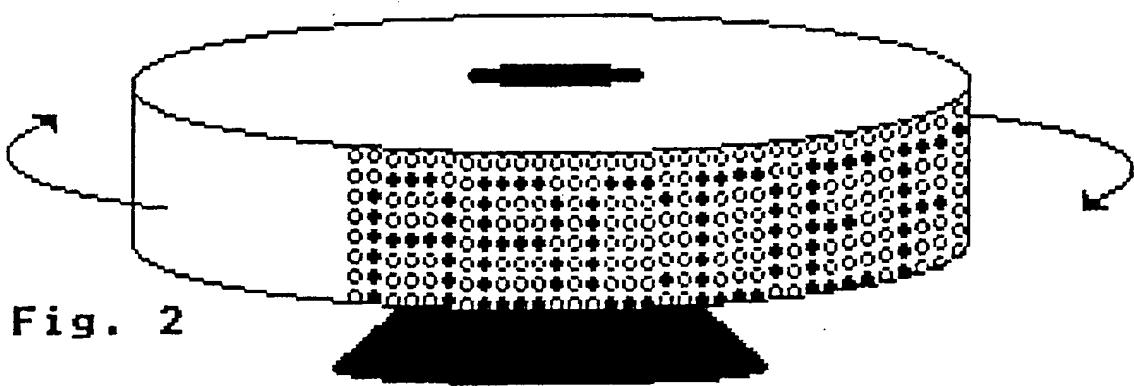
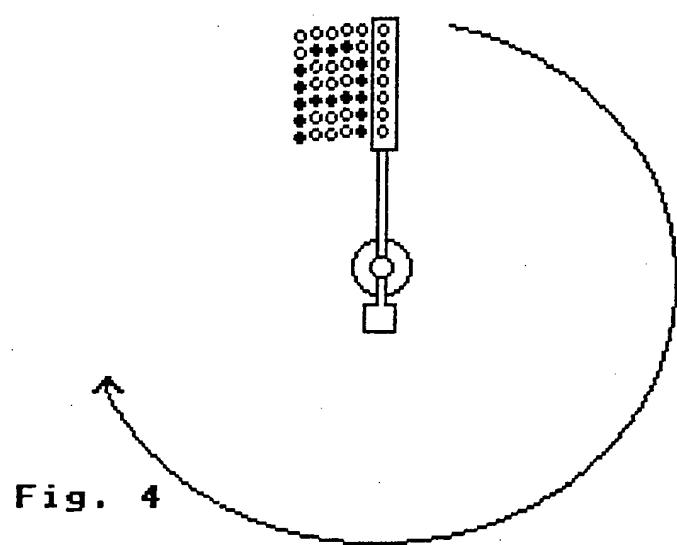
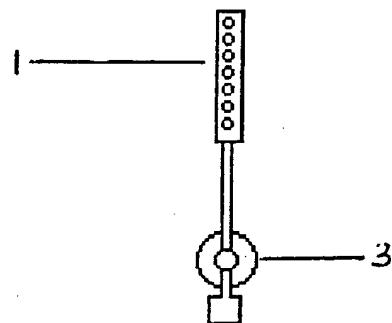
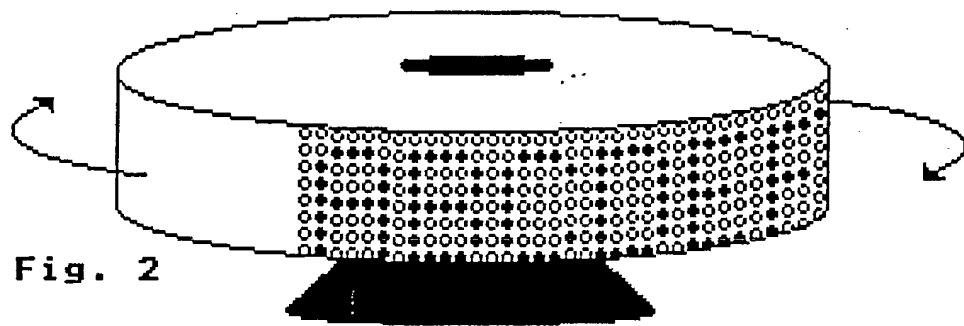
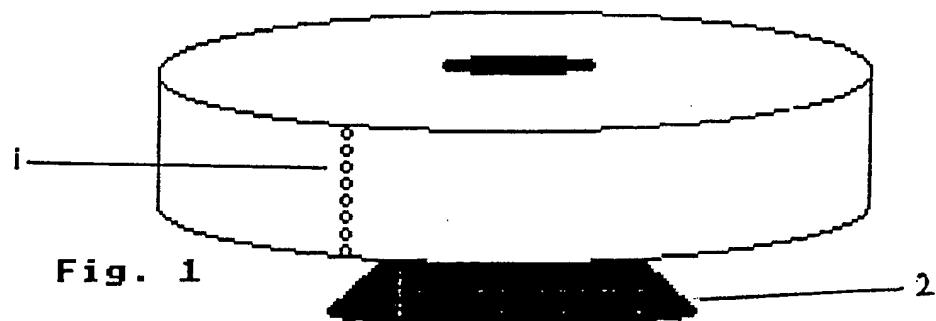


Fig. 2

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REVOLVING INFORMATION DISPLAY



REVOLVING INFORMATION DISPLAYS

Text and basic graphics information has been displayed using LEDs (Light Emitting Diodes) for a long time. Characters and pictures are formed by lighting the relevant LEDs in a larger matrix of LEDs. The bigger the matrix the more information can be displayed at any one moment.

This presented idea will effectively generate the same final result. By revolving a small number of LEDs that are positioned in a line, a larger matrix of LEDs will appear to be present.

Two illustrations of how this is achieved is shown in Fig 1,2,3 and 4.

An electronic circuit has been designed by myself to illuminate the LEDs. The circuit is responsible for pulsing out the data pattern that will appear on the LEDs, so that as the LEDs revolves it gives the illusion of words appearing on the devices.

Example applications for the devices are as follows:

Fig 1 and 2 - Could be used as desktop or shop window displays.

Fig 3 and 4 - A module could be fitted to bicycle wheels so that a **WARNING CYCLIST** message can be displayed as the cyclist rides at night.

The modules could be any size and fitted to any device that revolves to act as a warning system, or to just display information in a novel way.

1. LED MODULE WITH CONTROL CIRCUIT
2. BASE WITH MOTOR TO ROTATE DRUM
3. MOTOR TO ROTATE ARM.

CLAIMS

REVOLVING INFORMATION DISPLAYS

1. *The revolving information display comprising of a number of LEDs (Light Emitting Diodes) that are illuminated by a control circuit so as to display text and graphical information when the device revolves.*
2. *The revolving information display as claimed in claim 1, wherein the resultant matrix size can vary by increasing/decreasing the number of LEDs or the revolving diameter.*
3. *The revolving information display as claimed in claim 1 and 2, wherein provisions can be made in the electronic control circuit to operate LEDs or other light sources so to vary the type of application.*

Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report) 3

Application number

GB 9224608.1

Relevant Technical fields

Search Examiner

(i) UK CI (Edition)

G M PITCHMAN

(ii) Int CI (Edition)

Date of Search

Databases (see over)

(i) UK Patent Office

(ii) ONLINE DATABASES: WPI, CLAIMS

17 FEB 1993

Documents considered relevant following a search in respect of claims

1 TO 3

| Category (see over) | Identity of document and relevant passages | Relevant to claim(s) |
|------------------------|---|-------------------------|
| X | GB 2207796 A (KWOK-TUNG YUEN) - see Figure 1 and abstract | 1-3 |
| X | GB 2093617 A (LOCK) - see Figure 1 and abstract | 1-3 |
| X | WO 90/12354 A2 (STELLA COMMUNICATIONS) - see Figure 2 and pages 10 and 11 | 1-3 |
| X | WO 80/02218 A1 (MASSACHUSETTS INSTITUTE OF TECHNOLOGY) - see page 5 lines 1 to 26 | 1-3 |



| Category | Identity of document and relevant passages H | Relevant to claim(s) |
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Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).